

A RELATIONSHIP STUDY ON CHARACTERISTICS OF TECHNOLOGY PROFICIENT RURAL YOUTHS OF KANYAKUMARI DISTRICT OF TAMILNADU TOWARDS THEIR KNOWLEDGE EXTENSION

M. R. NAVEEN KUMAR¹ & H. PHILIP²

¹Research Scholar, Department of Agricultural Extension and Rural Sociology, Tamil Nadu Agricultural
University, Coimbatore, Tamil Nadu, India

²Professor, Department of Agricultural Extension and Rural Sociology, Tamil Nadu Agricultural
University, Coimbatore, Tamil Nadu, India

ABSTRACT

ICT helps farmers in several ways for obtaining agricultural information and triangulation of the obtained information. This study was taken up to find out the relationship of selected variables towards the knowledge extension of the rural youths. The study was conducted in Kanyakumari district of Tamil Nadu during 2018. The district was selected purposively whereas; the respondents were selected through random sampling procedures. The simple correlation coefficient, multiple linear regression, and backward regression analysis were worked out in the study. The study identifies that independent variables namely, extension agency contact, risk-taking ability, and educational status had contributed significantly. And also, Backward regression approach points out the extension agency contact, risk-taking ability, awareness on ICT tools and services, decision-making ability and innovativeness were identified as the major contributing variables towards the knowledge extension of the respondents.

KEYWORDS: Relationship, Knowledge Extension, Contributing Variables & Rural Youth

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INTRODUCTION

Interesting communication methods have been developed in Venezuela following the revolution led by Hugo Chavez because the anti-revolutionaries were still controlling the major communication tools and channels including the TV, radios, and papers. For instance, food wrappings were used to reach out to the people in the countryside. Short, attractive and simple statements on the food wrappings, the caricatures as well as the paintings give information on the revolution, the recent actions, the new constitution and the new rights (Benoit et al., 2006). This history is good enough to elucidate the importance of the communication process in developing people's ideas.

The present era is the era of Information and Communication Technology (ICT). ICT helps farmers in several ways such as farmers' advisory services through online phone based advisory services, internet supporting information-kiosks, web-based online agro-advisory services, video conferencing, online agricultural video channels, etc. (Aboh, 2008).

The use of internet has become inevitable in almost all the tiers of administration in India and worldwide as well. The browsing habit has definitely increased among the people youths in particular. Hence this study has been conducted in view of how it shall be tuned constructively towards improving their knowledge extension. Among the youth population, rural youths have been sampled as a step to mitigate the out-migration, as the majority of the rural people felt that the advanced agricultural technologies programmes dispersed to farmers through the mobile phone were good. (Mittal *et al.*, 2010).

This study was taken up with the objective to find out the relationship of selected (independent) variables towards the (dependent variable) knowledge gain of the respondents i.e. rural youth.

METHODOLOGY

The study was conducted at Kanyakumari district of Tamil Nadu during 2018-19. The study area was selected purposively, in which the respondents were selected randomly. Kanyakumari district was selected deliberately for the reasons such as its high literacy rate among the other districts' of Tamil Nadu i.e. 97 percentage and also its decennial rural population rate is decreasing in an alarming state.i.e. -5.51 % in 2001 and -43.21 % in 2011 census (Statistical Handbook, 2017). As it needs immediate care, the study has been purposively selected among the rural youth of Kanyakumari district of Tamil Nadu. Among the nine-blocks of Kanyakumari district, four blocks namely, Agatheeswaram, Rajakkamangalam, Kurunthen code and Thovalai have been selected for the study due to its higher banana production. The 40 rural youths involved in banana cultivation belonging to these blocks have been selected randomly for the study. The value addition technologies in banana have been taught to the rural youth respondents through the ICT tools namely, web page coupled with video mode. The knowledge gain has been selected as an effect variable for the study and about 19 variables have been selected as to cause variables for the study. A set of knowledge testing questions have been finalized with the help of Agricultural Extension Scientists. The responses were obtained for the knowledge-based questions both before and after the respondents' exposure to the treatments, i.e. web page + video. The variables were operationalized according to the need of the study and measured with the help of a pre-tested and well-structured questionnaire. The collected data were analyzed and tabulated using statistical tools namely, cumulative frequency, percentage analysis, correlation coefficient, regression coefficient and backward regression coefficient for better understanding of the results. The analyses were done using elite statistical software named SPSS 17.0 (Statistical Package for Social Sciences).

FINDINGS AND DISCUSSION

The knowledge gain refers to the mean knowledge gain obtained after exposing the respondents to the ICT tools by before and after the method of research design. The association and contribution of the selected independent variables towards the knowledge gain of the respondents have been presented in Table 1 and Table 2.

Nineteen independent variables namely, Age, Gender, Educational status, Occupational status, Farm size, Extension Agency contact, Mass Media Exposure, Information seeking behavior, Achievement motivation, Innovativeness, Trainings undergone, Aspiration of rural youth, Risk taking ability, Decision making ability, Awareness on ICT tools and services, Possession of modern electronic gadget, Degree of ICT accessibility, Degree of ICT accessibility and Willingness to pay for ICT services have been taken up for the study. Correlation analysis shows the association of the independent variables towards the knowledge gain of the respondents.

Table 1: Association of Rural Youths' Knowledge Gain of ICT Tools (Mobile App + Video) Users

(n = 40)

Variable No.	Variables	'r' value
X ₁	Age	-0.064
X ₂	Gender	-0.024
X ₃	Educational status	-0.211
X ₄	Occupational status	-0.116
X ₅	Farm size	-0.048
X ₆	Extension Agency contact	0.220
X ₇	Mass Media Exposure	0.297
X ₈	Information seeking behavior	-0.336*
X ₉	Achievement motivation	0.083
X ₁₀	Innovativeness	0.112
X ₁₁	Trainings undergone	0.117
X ₁₂	Aspiration of rural youth	-0.178
X ₁₃	Risk taking ability	0.491**
X ₁₄	Decision making ability	0.418**
X ₁₅	Awareness of ICT tools and services	-0.436**
X ₁₆	Possession of modern electronic gadget	0.154
X ₁₇	Degree of ICT accessibility	-0.101
X ₁₈	Preferred location of ICT access	-0.189
X ₁₉	Willingness to pay for ICT services	0.095

** - Significant at one per cent level;

* - Significant at five per cent level

It was observed from Table 1 that independent variables such as risk-taking ability and decision making ability found positively associated with the 0.01 % significance level towards the knowledge gain. The independent variables information seeking behavior and awareness on ICT tools and services are negatively associated with 0.05 % level and 0.01 % level of significance towards the knowledge gain.

Sometimes, the respondents possessing medium to a good level of information seeking behavior were the least knowledge graspers and it could be understood by the fact that as they seek information through various sources namely, institutional, non-institutional and mass media, the probability of misleading is quite higher. Likewise, mere knowing of several ICT tools and services does not necessarily mean that is used either constructively or for their professional development in particular.

Table 2: Contribution of Rural Youths' Knowledge Gain of ICT Tools (Mobile App + Video) Users

(n = 40)

S.no.	Variables	Regression co-efficient	't' value	P value
X ₁	Age	-0.046	-1.116	0.278
X ₂	Gender	-0.068	-0.142	0.889
X ₃	Educational status	-0.226	-1.641	0.016
X ₄	Occupational status	-0.040	-0.121	0.905
X ₅	Farm size	0.048	0.085	0.933
X ₆	Extension Agency contact	0.360	2.702	0.014
X ₇	Mass Media Exposure	0.016	0.153	0.880
X ₈	Information seeking behavior	-0.003	-0.071	0.944
X ₉	Achievement motivation	0.052	0.491	0.629
X ₁₀	Innovativeness	0.290	0.713	0.484
X ₁₁	Trainings undergone	-0.093	-0.343	0.735

Table 2: Contd.,				
X ₁₂	Aspiration of rural youth	-0.033	-0.278	0.784
X ₁₃	Risk taking ability	0.289	2.416	0.025
X ₁₄	Decision making ability	0.134	1.266	0.220
X ₁₅	Awareness on ICT tools and services	-0.319	-2.026	0.056
X ₁₆	Possession of modern electronic gadget	0.036	0.160	0.874
X ₁₇	Degree of ICT accessibility	0.004	0.030	0.976
X ₁₈	Preferred location of ICT access	-0.110	-0.707	0.488
X ₁₉	Willingness to pay for ICT services	-0.332	-0.697	0.494

R² = 0.726 F = 2.785**

From the Table 2 it could be seen that all the independent variables exerted their influence to the extent of 72.60 per cent of variation on knowledge gain of the (Treatment IV - Web Page + Video) rural youth respondents.

The F value (2.785) was found to be significant at one per cent level of probability. Hence, the results were fitted in the linear regression equation, as follows.

$$Y_1 = 2.591 - 1.116 X_1 - 0.142 X_2 - 1.641 X_3 - 0.121 X_4 + 0.085 X_5 + 2.702 X_6 + 0.153 X_7 - 0.071 X_8 + 0.491 X_9 + 0.713 X_{10} - 0.343 X_{11} - 0.278 X_{12} + 2.416 X_{13} + 1.266 X_{14} - 2.026 X_{15} + 0.160 X_{16} + 0.030 X_{17} - 0.707 X_{18} - 0.697 X_{19}$$

It could be seen from the equation that out of nineteen independent variables selected for the study, the independent variable extension agency contact (X₆) and risk taking ability (X₁₃) had contributed positively and significantly at 0.05 level of probability. Likewise, educational status (X₃) had contributed negatively and significantly at 0.05 level of probability towards the knowledge gain.

This indicated that a unit increase in extension agency contact and risk-taking ability *ceteris paribus* would increase the knowledge gain by 2.702 and 2.416 units respectively. While a unit increase in, the educational status would decrease the knowledge gain by 1.641 units of *ceteris paribus* respectively.

As per the survey results majority of the rural youths possessed favorable attitude towards the activities of extension agents of the locale hence, they had good and frequent contact with the extension agents. For this study, some of the rural youth respondents' meeting was organized with the help of extension officials of the KVK, Kanyakumari. It is because of the favorable attitude of the gathered rural youth respondents towards KVK officials that influence them to learn the new technologies. Likewise, as mentioned elsewhere, more than half of the rural youth respondents have interest in starting own business (Entrepreneurs). It is generally understood that entrepreneurs used to take more risk for trying new things in their business for more profitability. Hence, this result was observed.

In this treatment group, one interesting finding to be mentioned is, the educational status negatively influences the respondents in knowledge gain. This could be understood in the way that, the banana value-added technologies were provided by the researcher although monitored by food scientists, the rural youth respondents having collegiate education did not have high hopes on the technologies being provided. This prejudice might have been the reason for the finding. This finding is in contradictory to the findings of Anandaraja (2002) who reported that the well-educated respondents much eagerly learn knowledge in the experimental study.

Backward regression approach has been selected for identifying the most contributing cause variables towards the effect variable i.e. knowledge extension. Knuppel *et al.* (2012) used this approach in the medical sciences to identify the risky antibodies among various antibodies. Table 3 shows the most contributing variable towards knowledge expansion.

Table 3: Maximum Contributing Independent Variables on Knowledge Gain (Treatment IV - Web Page + Video) Using Backward Regression Approach

S. No.	Independent Variables	't' value	Significant values	R ² Contribution	Ranking Order
1.	Extension agency contact	4.200	0.000	0.647	1
2.	Risk taking ability	4.298	0.000		2
3.	Awareness of ICT tools and services	-3.539	0.001		3
4.	Decision-making ability	2.243	0.032		4
5.	Innovativeness	1.779	0.084		

With the help of backward regression approach, extension agency contact (X_6), risk-taking ability (X_{13}), awareness on ICT tools and services (X_{15}), decision making ability (X_{14}) and innovativeness (X_{10}) were identified as the major contributing variables towards the knowledge gain of the respondents as evident from Table 3. It infers that the above mentioned five independent variables alone influencing the R^2 value with their contribution of about 64.70 %. Hence, all other independent variables contribute only to the extent of about 7.90 %.

The rank order was given to further distinct the filtered variables' contribution i.e. extension agency contact and risk-taking ability with the significance value of 0.000, awareness on ICT tools and services with the significance value of 0.001, decision-making ability with the significance value of 0.032 and innovativeness with the significance value of 0.084 holds the rank order of 1, 2, 3 and 4 respectively. As evident to this result, Sriram (2000) quoted that extension agency contact is one of the major contributing variables towards the knowledge gain.

CONCLUSIONS

The study shows that independent variables such as risk-taking ability, decision making ability information seeking behavior and awareness on ICT tools and services are significantly associated with the knowledge extension of the rural youth respondents. Likewise, the independent variable extension agency contact, risk-taking ability and educational status had contributed significantly. Also, extension agency contact, risk-taking ability, awareness on ICT tools and services, decision-making ability and innovativeness were identified as the major contributing variables towards the knowledge extension of the respondents. It could be concluded that the research studies on knowledge expansion shall include these significant variables to obtain the most noteworthy results.

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